

# Contributing to Swift Compiler

Contributing to Swift Compiler, Yusuke Kita (@kitasuke), try! Swift Tokyo 2019



Hi, I'm Yusuke  
@kitasuke

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# How did I contribute?

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# Community-Driven Contribution

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# Swift Community

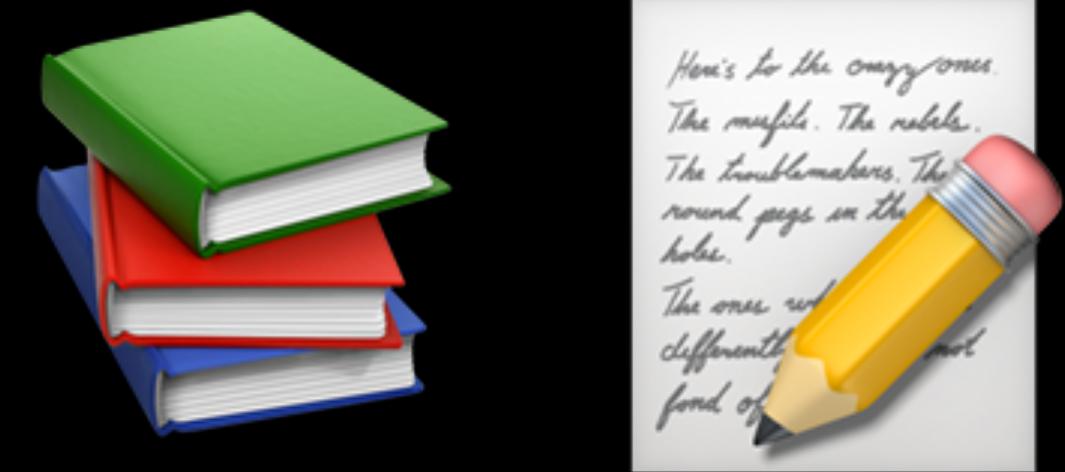
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# try! Swift

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# try! Swift-Driven Contribution

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# Open Source Swift

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# Contributing to Open Source Swift

→ try! Swift Tokyo 2016



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# Swift Compiler



# **libSyntax**

# **SwiftSyntax**

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# Improving Swift Tools with libSyntax

→ try! Swift NYC 2017



# AST

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# AST Meta-Programming in Swift

→ try! Swift Tokyo 2018



# SIL

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# SIL for First Time Learners

→ try! Swift Tokyo 2018



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# Swift Compiler





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# Open Source Swift Workshop

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# Open Source Swift Workshop

→ try! Swift Tokyo 2018

[SILGen] Use shared string  
constant for swift shims name in  
SILPrint 

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# Open Source Swift Workshop

→ try! Swift San Jose 2018

[SIL] Don't print duplicated import decls 

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# Open Source Swift Workshop

→ try! Swift Tokyo 2019

**Submit your PR tomorrow!**

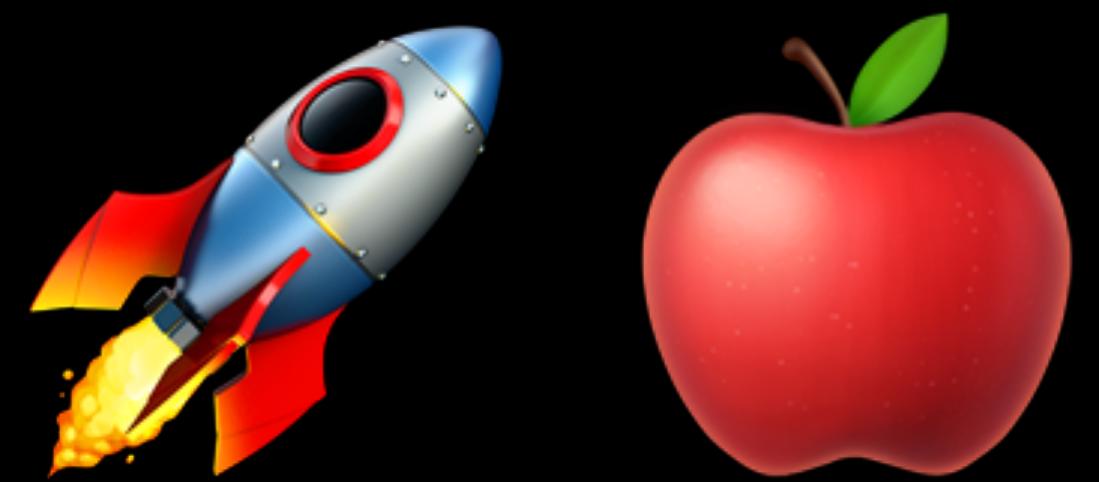
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## Open Source Swift Workshop

Sho Ikeda & Yusuke Kita & Nicholas Maccharoli

In this work shop we will look at the Swift compilation process and what those parts are, learn a bit about LLVM, how to find a bug to work on using bugs.swift.org and then making a build with our changes and running tests. A merged pull request is not the goal of this workshop, but after attending this workshop you should have enough knowledge to get started and know where to look to learn more. If you are proficient in C++ or even have some experience with LLVM, then you can start working with the Swift compiler right away. If you do not have former C++ knowledge fear not, the Swift standard library and SwiftSyntax are written mostly in Swift and the python / swift hybrid '.gyb' files.



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# Recap

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# Recap

- Take ideas from community

# Recap

- Take ideas from community
- Give ideas to community

# Recap

- Take ideas from community
- Give ideas to community
- Never too late to start



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# References

- [Getting Started with Swift Compiler Development](#)
- [Building a Compiler in Swift with LLVM, Part 1: Introduction and the Lexer](#)
- [How to talk to your kids about SIL type use](#)
- [Swift コンパイラのアーキテクチャ\(JP\)](#)
- [Swiftコンパイラ開発用の環境構築\(JP\)](#)

# Thank you!

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